

However, in the art of No. 3-56699, because electrolyte and an electric conductor do not contact each other directly, a large quantity of electrolyte is necessary. The apparatus is large because of a large electrolyte bath. [And because] As the electrodes are also located in the electrolyte, a third disadvantage of this prior art technique is that short circuits occur among the electrodes through the electrolyte.

Page 2, third full paragraph, (lines 10-14), the marked up paragraph is as follows:

To achieve[s] the above purpose, a feature of the present invention is that electrodes have jet openings which jet the electrolyte to the steel strip, that is to say, the electrode is integrated with the nozzle which jets an electrolyte.

Page 2, fifth full paragraph, (lines 19-23), the marked up paragraph is as follows:

[Acceding] According to a feature of the present invention, it is possible to reduce the size of an electrolyte tank storing the electrolyte, because the quantity of an electrolyte decreases by jetting the electrolyte in the air. Therefore, the descaling apparatus is miniaturized.

Pages 2 and 3, the paragraph bridging these pages from page 2, line 24 through page 3, line 2, the marked up paragraph is as follows:

In [contact] contrast to the conventional art [submerging steel strip, because a] wherein the steel to be treated is submerged in the electrolyte, the present invention's use of jetting means for jetting the electrolyte onto the steel strip obviates immersion of the steel strip and the occurrence of short-circuit electric current [through an electrolyte] between the electrodes [decreases, the] , thus improving electric power efficiency [improves].

Page 3, the fourth full paragraph, lines 12-14, the marked up paragraph is as follows:

Another feature[s] of the present invention is that the descaling apparatus further has [jet pressure] force adjustment of the jetted electrolyte.

Page 3, the fifth full paragraph, lines 15-17, the marked up paragraph is as follows:

By adjusting the [jet pressure] force of the jetted electrolyte, the waving and the flexure of the steel strip is prevented, and we can arrange the electrodes close to the steel strip.

Page 3, the sixth full paragraph, lines 18-21, the marked up paragraph is as follows:

Because the electrodes are moved closer to the steel strip, a voltage drop between the electrodes and the steel strip becomes lower, and the electric power for the descaling can be decreased [decreases].

Pages 3 and 4, the paragraph bridging these pages from page 3, line 22 through page 4, line 2, the marked up paragraph is as follows:

By using the above-mentioned [the] descaling apparatus, the steel strip manufacturing apparatus [improves the] attains an improvement in electric power efficiency and the processing speed, and the manufacturing apparatus becomes small.

Page 5, the first full paragraph, lines 4 - 9, the marked up paragraph is as follows:

The rolled steel strip 1 passes through the cooling hearth 5 and passes through the neutral salt solution electrolysis part 6 that is the first electrolysis part. In the neutral salt solution electrolysis part 6, with the neutral salt solution 20 (shown in Fig. 2) as a sulfate sodium solution, [a] chrome oxide is eliminated.